

BOARD OF HEALTH, GUERNSEY.

President :

J. N. BROUARD, Esq., States Supervisor.

Members :

E. C. OZANNE, Esq., C.S.I., Jurat.	E. VALPIED, Esq.
E. COLLAS, Esq., Jurat.	A. COLLENETTE, Esq.
REV. R. JONES.	J. W. DOREY, Esq.
W. H. FOOTE, Esq.	

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1901.

Area of the Island in acres 16,000.
Population in 1891...35,320. Population in 1901...40,300.



Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

<https://archive.org/details/b29269398>

RAPPORT DE L'OFFICIER DE LA SANTÉ PUBLIQUE.

Letter of the Medical Officer of Health.

Health Office, Hougue-à-la-Perre, May, 1902.

To the President and Members of the Board of Health for the Island
of Guernsey.

GENTLEMEN,

I have the honor to submit for your consideration my Annual Report on the Health of the Island for the past year.

That cases of Small-pox from London might, in spite of the vigilance of the Port Sanitary Authority (London) and that of your Insular Authorities be inadvertently landed here, naturally caused some disquietude, but fortunately this did not occur, nor has it occurred up to the time of this report going to press.

I take this opportunity of thanking both Mr. A. Collenette, F.C.S., and Mr. T. J. Guilbert (States Surveyor), for again supplying the appendices on "The Weather" and "Drainage" respectively.

I have, &c., &c.,

E. STANLEY HOARE,
Medical Officer of Health.

CONTENTS.

	Page.		Page.
STATISTICAL	4-11	TUBERCULOSIS.....	16-20
DIPHTHERIA	12	THE NEW SANATORIUM	20
ENTERIC FEVER	13	SCHOOL INFECTIONS.....	20
SCARLET FEVER	14	WATER SUPPLY	21
SMALL-POX	15	SCAVENGING & CLEANSING.....	21
WHOOPING COUGH	15	DISINFECTION	22
MEASLES	15	INSPECTIONS	22
EPIDEMIC ENTERITIS	16	APPENDIX (WEATHER)	23, 24
INFLUENZA	16	„ (DRAINAGE)	25-28

REPORT.

STATISTICAL—POPULATION.

The total population of the Island was shown by the recent Census to be 40,300, which is nearly 2,000 more than a calculation based on the two previous returns indicated: the difference being, no doubt, largely due to immigration caused by the “growing” industry.

BIRTHS.

One thousand and ninety-six births (of which 546 were males), were registered during the year; this is equal to a birth-rate of 27·2.

DEATHS.

The total number of deaths amounted to 699, or 75 more than in 1900. This is equal to a death-rate of 17·34. The increase was almost entirely due to the greater prevalence of fatal forms of respiratory diseases, especially among young children, for Whooping Cough caused 45 more deaths than in 1900, Bronchitis 11 and Pneumonia 15; those ascribed to Phthisis, however, were fewer by 18 per cent.

As regards distribution, the number of deaths which occurred in the Town was about the same as in 1900; St. Sampson's and the Vale parishes being chiefly responsible for the higher Country rate.

Table I. (INCORP. SOC. OF M. O. H., 1900), FOR WHOLE DISTRICT.

YEAR.	Population estimated to middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES.	
		Number.	Rate.	Number.	Rate per 1,000 registered.	Number.	Rate.
Column...	1	2	3	4	5	6	7
1891	35,218	1,064	30·21	113	106·2	681	19·33
1892	35,529	1,101	30·99	185	168·0	679	19·09
1893	35,884	1,143	31·91	185	161·9	692	19·28
1894	36,289	1,093	30·12	135	123·5	632	17·41
1895	36,741	1,126	30·62	175	155·4	712	19·38
1896	37,245	1,228	32·97	129	105·0	547	14·68
1897	37,801	1,157	30·60	193	166·8	708	18·73
1898	38,415	1,161	30·22	194	167·0	705	18·35
1899	39,072	1,121	28·69	151	134·7	666	17·04
1900	39,703	1,011	25·46	145	143·4	624	15·72
Averages for ten years, 1891-1900.		1,120	30·18	160	143·1	664	17·90
1901	40,300	1,096	27·20	190	171·3	699	17·34

INFANTILE MORTALITY.

One hundred and ninety children died before they were a twelvemonth old, the exact rate being 176 per 1,000 births, which is considerably above the average for England and Wales. For this high figure Whooping Cough is largely responsible, no less than 32 infant lives having been lost owing to this dangerous infectious disease. The infantile mortality rate for England and Wales for the same period was 151. In the 33 great towns it was naturally higher (172), due to the influence of factory life. In Guernsey there are but few factories and I am inclined to ascribe this abnormally high rate to parental ignorance and neglect. Premature birth and debility were responsible for the deaths of 39 infants during the year. As regards "illegitimate" births, which usually add considerably to the infant mortality I have been unable to obtain any data. "Convulsions" again is the ascribed cause of a large number of infant deaths, viz. : 50, as compared with 44 in 1900. It is a matter for very great regret that the (carefully prepared) "Projet de Loi" for death certification and registration has not been advanced beyond a preliminary discussion before the Royal Court.

The following Tables show the Deaths registered during the year, classified according to Diseases, Parishes and Ages.

Table A.

RETURN OF DEATHS REGISTERED DURING THE YEAR 1901.

	PARISH	A	B	C	D	E	F	G	H	I	K	Tl.									
GENERAL DISEASES AND INJURIES.																					
<i>Diathctic.</i>																					
Chronic Rheumatism	-	...	1	...	-	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	2
Gout..	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
<i>Diseases of the Blood.</i>																					
Anæmia	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	1
<i>Epidemic.</i>																					
Diphtheria	2	...	1	...	-	...	-	...	-	...	1	...	-	...	-	...	1	...	1	...	6
Enteric Fever.....	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Enteritis	17	...	2	...	3	...	-	...	-	...	2	...	-	...	1	...	2	...	-	...	27
Influenza.....	1	...	1	...	-	...	1	...	-	...	-	...	-	...	-	...	2	...	-	...	5
Measles	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	-	...	2
Whooping Cough	16	...	11	...	16	...	-	...	1	...	1	...	-	...	-	...	1	...	1	...	47
<i>Ill Defined.</i>																					
“ Brain Fever ”	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Dropsy.....	2	...	2	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	5
“ Exhaustion ”	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Hæmorrhage	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Jaundice	1	...	-	...	-	...	-	...	-	...	1	...	-	...	-	...	-	...	-	...	2
“ Natural Causes ”	-	...	-	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	1
<i>Infancy and Old Age.</i>																					
Convulsions	8	...	5	...	12	...	4	...	1	...	6	...	2	...	4	...	7	...	1	...	50
Debility at Birth.....	4	...	4	...	6	...	3	...	1	...	-	...	1	...	2	...	1	...	1	...	23
Marasmus	7	...	-	...	3	...	-	...	2	...	-	...	-	...	-	...	-	...	1	...	13
Premature Birth.....	9	...	2	...	1	...	2	...	-	...	1	...	-	...	-	...	-	...	1	...	16
Senile Decay	40	...	12	...	6	...	11	...	1	...	-	...	-	...	2	...	7	...	4	...	83
<i>Infective.</i>																					
Phthisis	22	...	6	...	6	...	7	...	1	...	5	...	-	...	2	...	2	...	1	...	52
Other Tubercular	14	...	2	...	3	...	1	...	-	...	-	...	-	...	1	...	2	...	2	...	25
Tetanus	-	...	-	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	1
<i>Pregnancy.</i>																					
Hæmorrhage	-	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Undefined	-	...	-	...	1	...	-	...	-	...	-	...	-	...	1	...	-	...	-	...	2

Septic.

Acute Rheumatism	3	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	-	...	1	...	5
Pyæmia	2	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	2
Septicæmia	3	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	4

Tumours.

Malignant ..	10	...	2	...	2	...	1	...	2	...	1	...	1	...	-	...	4	...	1	...	24
Undefined ..	4	...	1	...	3	...	-	...	1	...	-	...	-	...	1	...	-	...	-	...	10

Violence.

Burns	2	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	2
Drowning	2	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	-	...	4
Exposure.....	1	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	2
Falls	2	...	1	...	-	...	2	...	-	...	-	...	-	...	1	...	-	...	-	...	6
Horse Kick.....	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	-	...	1
Run Over	2	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	3
Suicide	1	...	1	...	-	...	1	...	-	...	-	...	-	...	1	...	-	...	-	...	4

DISEASES OF SPECIAL ORGANS.

Alimentary.

Intestines	4	...	2	...	1	...	2	...	-	...	-	...	-	...	-	...	-	...	-	...	9
Liver	4	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	-	...	5
Peritoneum.....	4	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	4
Stomach	1	...	-	...	1	...	-	...	-	...	1	...	-	...	-	...	-	...	1	...	4

Circulatory.

Apoplexy.....	17	...	3	...	1	...	3	...	1	...	-	...	1	...	-	...	5	...	1	...	32
Hæmorrhage	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	1
Heart Disease.....	27	...	7	...	8	...	6	...	1	...	-	...	-	...	-	...	2	...	2	...	53

Nervous.

Encephalitis	-	...	-	...	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Epilepsy	1	...	-	...	-	...	2	...	-	...	-	...	-	...	-	...	-	...	-	...	3
Graves' Disease	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1	...	1
Ill-defined	2	...	1	...	1	...	-	...	-	...	-	...	-	...	-	...	1	...	-	...	5
Meningitis	5	...	3	...	2	...	2	...	-	...	-	...	-	...	-	...	-	...	-	...	12
Paralysis	10	...	2	...	6	...	6	...	-	...	1	...	-	...	-	...	-	...	-	...	25

Respiratory.

Bronchitis	25	...	8	...	7	...	2	...	1	...	1	...	1	...	-	...	3	...	4	...	52
Laryngitis	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Pneumonia	12	...	10	...	7	...	4	...	-	...	-	...	-	...	2	...	3	...	1	...	39

Urinary.

Calculus	-	...	-	...	-	...	-	...	-	...	1	...	-	...	-	...	-	...	-	...	1
Cystitis	1	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	1
Diabetes	3	...	2	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	-	...	5
Nephritis.....	6	...	-	...	-	...	2	...	-	...	-	...	-	...	1	...	-	...	-	...	9

303	95	100	65	14	22	6	20	47	27	699
-----	----	-----	----	----	----	---	----	----	----	-----

Table IV. (INCORP. SOC. OF M. O. H., 1900).

CAUSES OF, AND AGES AT DEATH OF THE DEATHS REGISTERED
DURING YEAR 1901.

CAUSES OF DEATH.	WHOLE ISLAND.						
	All Ages.	Under 1.	1-5.	5-15.	15-25.	25-65.	65 and upw'ds.
GENERAL DISEASES & INJURIES.							
<i>Diathetic.</i>							
Chronic Rheumatism.....	2	...	—	...	—	...	2 ... —
Gout.....	1	...	—	...	—	...	— ... 1
<i>Diseases of the Blood.</i>							
Anæmia	1	...	—	...	—	...	1 ... —
<i>Epidemic.</i>							
Diphtheria	6	...	—	...	5 ... 1 ... —	...	—
Enteric Fever	1	...	—	...	1 ... —	...	—
Enteritis	27	...	26	...	1 ... —	...	—
Influenza	5	...	—	...	—	...	3 ... 2
Measles	2	...	—	...	2 ... —	...	—
Whooping Cough	47	...	33	...	14 ... —	...	—
<i>Ill-defined.</i>							
" Brain Fever "	1	...	—	...	1 ... —	...	—
Dropsy	5	...	—	...	—	1 ... 2 ... 2	—
" Exhaustion "	1	...	—	...	1 ... —	...	—
Hæmorrhage	1	...	—	...	—	...	1
Jaundice	2	...	1	...	—	...	1
" Natural Causes "	1	...	1	...	—	...	—
<i>Infancy and Old Age.</i>							
Convulsions.....	50	...	35	...	15 ... —	...	—
Debility at Birth.....	23	...	23	...	—	...	—
Marasmus	13	...	13	...	—	...	—
Premature Birth	16	...	16	...	—	...	—
Senile Decay	83	...	—	...	—	...	2 ... 81
<i>Infective.</i>							
Phthisis	52	...	4	...	3 ... 7 ... 14 ... 22 ... 2	...	—
Other Tubercular	25	...	6	...	12 ... 1 ... 3 ... 3 ... —	...	—
Tetanus	1	...	—	...	—	...	1 ... —
<i>Pregnancy.</i>							
Hæmorrhage	1	...	—	...	—	...	1 ... —
Undefined	2	...	—	...	—	...	2 ... —

Septic.

Acute Rheumatism	5	...	—	...	—	...	1	...	1	...	3	...	—
Pyæmia	2	...	—	...	—	...	—	...	1	...	1	...	—
Septicæmia	4	...	—	...	—	...	—	...	1	...	3	...	—

Tumours.

Malignant	24	...	—	...	—	...	—	...	—	...	13	...	11
Undefined	10	...	—	...	—	...	—	...	—	...	7	...	3

Violence.

Burns	2	...	—	...	—	...	—	...	1	...	1	...	—
Drowning	4	...	—	...	—	...	—	...	1	...	3	...	—
Exposure	2	...	1	...	—	...	—	...	—	...	1	...	—
Falls	6	...	—	...	1	...	—	...	—	...	4	...	1
Horse Kick	1	...	—	...	—	...	1	...	—	...	—	...	—
Run Over.....	3	...	—	...	—	...	—	...	—	...	3	...	—
Suicide.....	4	...	—	...	—	...	—	...	—	...	3	...	1

DISEASES OF SPECIAL ORGANS.

Alimentary.

Intestines.....	9	...	1	..	—	...	2	...	—	...	4	...	2
Liver	5	...	—	...	—	...	—	...	1	...	1	...	3
Peritoneum	4	...	—	...	—	...	—	...	—	...	2	...	2
Stomach	4	...	—	...	—	...	—	...	—	...	—	...	4

Circulatory.

Apoplexy.....	32	...	—	...	—	...	1	...	—	...	17	...	14
Hæmorrhage	1	...	—	...	—	...	—	...	—	...	1	...	—
Heart Disease	53	...	—	...	—	...	2	...	1	...	29	...	21

Nervous.

Encephalitis	1	...	—	...	—	...	—	...	—	...	1	...	—
Epilepsy	3	...	—	...	—	...	—	...	1	...	2	...	—
Graves' Disease	1	...	—	...	—	...	—	...	—	...	1	...	—
Ill-defined	5	...	—	...	1	...	2	...	—	...	2	...	—
Meningitis	12	...	3	...	5	...	3	...	—	...	1	...	—
Paralysis ..	25	...	—	...	—	...	—	...	—	...	12	...	13

Respiratory.

Bronchitis	52	...	22	...	8	...	3	...	—	...	4	...	15
Laryngitis	1	...	—	...	—	...	1	...	—	...	—	...	—
Pneumonia	39	...	9	...	12	...	2	...	3	...	6	...	7

Urinary.

Calculus	1	...	—	...	—	...	—	...	—	...	1	...	—
Cystitis	1	...	—	...	—	...	—	...	—	...	1	...	—
Diabetes	5	...	—	...	—	...	—	...	1	...	3	...	1
Nephritis	9	...	—	...	—	...	—	...	—	...	7	...	2

Total	699	194	81	28	31	175	190
-------------	-----	-----	----	----	----	-----	-----

The following Table shows the Births and Deaths registered during the past ten years,

Table

Names of Parishes.	ST. PETER-PORT.				ST. SAMPSON'S.				THE VALE.				CASTEL.				ST. SAVIOUR'S.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
Column ...	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
1891.....	17041	459	309	40	4493	154	67	20	3947	162	74	20	2426	69	68	6	916	29	20	2
1892.....	17121	496	327	85	4558	165	80	32	4011	152	89	25	2451	63	59	11	925	26	15	5
1893.....	17207	506	344	92	4632	157	63	16	4086	159	70	23	2479	72	63	16	935	29	14	2
1894.....	17301	477	310	67	4717	183	71	19	4172	145	56	12	2511	71	56	11	946	26	14	3
1895.....	17402	499	350	61	4813	156	93	41	4269	154	81	24	2547	71	44	9	958	31	22	8
1896.....	17514	520	242	55	4921	202	70	19	4377	169	67	20	2586	75	56	4	972	33	23	7
1897.....	17637	481	353	81	5042	179	89	38	4496	172	80	29	2627	69	47	11	988	33	15	2
1898.....	17770	467	335	78	5177	185	78	36	4626	161	78	25	2670	87	75	14	1007	24	15	4
1899.....	17914	469	298	47	5317	177	90	30	4768	166	72	28	2717	71	62	11	1027	24	19	6
1900.....	18044	436	302	65	5452	178	62	19	4921	170	82	25	2761	70	64	11	1045	30	17	4
Average of 10 years to 1900.		481	317	67		173	76	27		161	74	23		71	59	10		28	17	4
1901.....	18162	440	303	66	5573	166	95	31	5082	167	101	45	2802	69	64	12	1062	27	14	3

together with the population estimated to the middle of each year for each parish.

II.

Names of Parishes.	ST. PETER-IN-THE- WOOD.				TORTEVAL.				FOREST.				ST. MARTIN'S.				ST. ANDREW'S.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
Column ...	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
1891.....	1322	53	27	7	446	13	14	1	665	19	20	5	2659	62	60	9	1303	44	22	3
1892.....	1335	59	29	12	446	7	9	0	675	15	12	2	2690	80	30	6	1317	38	29	7
1893.....	1351	55	30	11	446	14	10	1	687	21	13	1	2727	87	53	15	1334	43	32	8
1894.....	1371	44	26	7	446	8	7	1	701	21	10	2	2770	79	66	10	1354	39	18	3
1895.....	1394	54	29	7	446	9	10	2	716	18	14	0	2819	82	45	12	1377	52	24	11
1896.....	1420	56	20	6	446	14	10	0	733	27	7	6	2874	90	32	8	1402	42	20	4
1897.....	1449	37	27	6	446	15	9	1	751	25	14	8	2935	106	56	16	1430	40	12	1
1898.....	1481	57	29	16	446	13	5	0	775	29	12	3	3002	101	48	13	1461	37	30	5
1899.....	1516	50	32	10	446	6	9	1	800	22	19	6	3073	89	45	6	1494	47	20	6
1900.....	1548	57	25	9	446	19	8	2	822	23	19	4	3140	100	39	6	1524	38	17	2
Average of 10 years to 1900.		52	27	9		11	9	1		22	14	3		87	47	10		42	23	5
1901.....	1577	57	23	8	446	6	6	2	842	27	20	7	3201	88	46	10	1552	49	27	6

NOTIFIABLE SPECIFIC DISEASES.

Table III.—(INCORP. SOC. OF M.O.H. 1900).

CASES OF INFECTIOUS DISEASES NOTIFIED, 1900.

Classified according to Ages.

	At all Ages.	0-1.	1-5.	5-15.	15-25.	25-65.	65 and upwards.
Diphtheria.....	66	...	12	22	11	11	...
Scarlet Fever ..	141	2	44	85	8	2	...
Enteric	6	...	...	2	...	4	...
Total	213	2	56	109	19	17	...

Ditto classified according to Parishes.

	St. Peter-Port.	St. Sampson's.	Vale.	Castel.	St. Saviour's.	St. Pierre-du-Bois.	Torteval.	Forest.	St. Martin's.	St. Andrew's.	TOTAL.
Diphtheria	22	11	3	3	2	15	—	—	7	3	66
Scarlet Fever	97	11	5	14	—	2	—	—	8	4	141
Enteric	4	1	—	1	—	—	—	—	—	—	6
Total	123	23	8	18	2	17	—	—	15	7	213

DIPHTHERIA.

The mortality from Diphtheria was .18 of the population as against .34 the year before; the number of cases notified has also declined, being 121 in 1899, 80 in 1900, and 66 this year.

The sporadic incidence of this disease has again been evident from its uniform distribution, and I am of opinion that but for the efficient machinery that is now in operation for checking the complaint, serious epidemic extensions would have occurred.

The use of anti-toxin is now general among the Medical Practitioners in the island, and by its agency the death-rate has been still further reduced. Of the 66 cases notified only 7 proved fatal. Where anti-toxin was used before the patient was "in extremis" and where proper nursing was obtainable, recovery almost invariably took place. Fifty of the cases occurred during the winter months, and, as regards distribution, the Country supplied two-thirds of the total number. The cases treated in Hospital numbered 29 with only two deaths. While, therefore, good use has been made of the agency provided by

Science (Anti-toxin) for curing Diphtheria and limiting its spread, but little has been done in the way of general sanitary measures, by which this and many other diseases can be attacked at their origin.

Table B.

DIPHTHERIA.—CASES NOTIFIED AND NUMBER OF DEATHS.

Parish.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Tl.
St. Peter-Port	1	1	2	1	-	2	2	1	2	4	4	2	22
St. Sampson's	1	-	3	1	2	1	-	-	-	-	1	2	11
Vale ..	1	1	-	-	-	-	-	-	1	-	-	-	3
Castel	2	-	-	-	-	-	-	-	-	1	-	-	3
St. Saviour's	-	-	1	-	-	-	-	-	-	-	1	-	2
St. Pierre-du-Bois	-	-	1	-	-	-	-	-	-	6	5	3	15
Torteval	-	-	-	-	-	-	-	-	-	-	-	-	-
Forest	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Martin's.....	2	-	-	1	-	-	1	1	-	-	1	1	7
St. Andrew's	2	1	-	-	-	-	-	-	-	-	-	-	3
Total	9	3	7	3	2	3	3	2	3	11	12	8	66
Deaths—Town	-	-	-	-	-	-	-	-	-	1	-	-	1
Country	1	-	-	-	1	-	-	-	1	1	-	2	6

ENTERIC FEVER.

Six cases of this disease were reported during the year, 4 in the Town and 2 in the Country, thus further demonstrating the essentially sporadic nature of the Typhoid Fever in Guernsey, though one cannot shut one's eyes to the fact that the extension of the drainage system without adequate provision for water supply may at any moment be responsible for a serious epidemic of this, the most insidious of the notifiable Infectious Diseases. The comparatively recent experiences of Worthing and Maidstone should be a lesson showing how to avoid such a calamity; but as the whole subject is now under consideration by the States, no further comment from me is at present desirable.

Although the much-debated question as to whether Enteric Fever can arise *de novo*, or whether each case must be connected with a previous one, has not yet been definitely settled, the evidence available appears to show that the transmutation of the *Bacillus Coli Communis* into the *Bacillus Typhi Abdominis* actually does take place.

A recent case of Enteric Fever shows well, I think, that the disease may be caught by close contact with decomposing faecal matter, not derived from a previous case. In the case to which I refer, a plumber was removing a County Council pedestal basin from its old setting, as the premises on which it was situated were being altered; to prevent breaking the basin the work

SMALL-POX.

No cases of Small-pox were notified during the year. Guernsey has retained intact the usual provisions for preventing the spread of this disease by **maintaining efficient vaccination**. Here the "conscientious objector" is unknown, and owing to the careful supervision of the Harbours by the States authorities, the outbreak of Small-pox in London has not infected this Island; but even had the complaint been disseminated amongst us I feel confident that no serious epidemic would have occurred.

NON-NOTIFIABLE SPECIFIC DISEASES.

WHOOPING COUGH.

During the year Whooping Cough caused no less than 47 deaths—as compared with 2 in 1900—of which 33 occurred among infants. The epidemic was confined to the three large parishes, which have a population equal to nearly three-quarters of that of the whole Island.

The outbreak commenced in the Town and spread *viâ* St. Sampson to the Vale. The epidemic was at its height in April, during which month 13 deaths were registered.

It is not unusual for Whooping Cough to cause nearly as many deaths as Scarlet Fever, Diphtheria and Enteric Fever combined, but this year it has claimed nearly six times the number of victims. This, one of the most neglected non-notifiable infectious diseases caused, in England and Wales, in 1900, no less than 10,984 deaths.

MEASLES.

Two deaths were recorded from the above during the year, while in 1900 none were registered. The year before some score of deaths were ascribed to measles, which is the most infectious of all infantile complaints and is often very fatal to young children especially among the labouring classes, where their limited incomes and large families seldom permit of proper nursing,

Ignorance, however, must be held responsible for a part, at least, of this high fatality among the above-mentioned section of the community, as the disease is regarded by them with an equanimity which the average death rate from this complaint—if it were popularly known and understood—would do much to disturb. Measles epidemics exhibit a well-marked cycle, having a period of about three or four years, and recurring with the fresh appearance of susceptible material. Notification of this disease has been attempted in several large towns in England, but has usually been abandoned after a short trial.

EPIDEMIC ENTERITIS.

This complaint (also known as Infantile Diarrhœa) was responsible for 27 deaths during the year as compared with 22 in 1900 and 39 the year before. In both 1899 and 1900 the number of deaths from this disease in Town and Country were nearly equal, but this year the Town suffered rather more severely, the exact proportion being as 17 is to 10.

INFLUENZA.

The above, which is probably the most infectious disease communicable to man without direct inoculation, now appears to have become perennial; and although during the year under consideration it has caused a great deal of sickness, there were, fortunately, but few deaths,—viz., five, or exactly the same number as last year.

TUBERCULAR DISEASES.

In this Class 77 deaths were registered, of which two-thirds were ascribed to Phthisis, these figures being similar to these recorded last year. As is usual the chief incidence of Phthisis fell upon those between the ages of 20 and 45, at which period of life the average working capacity is about at its best, so that from the point of view of Social Economy any means of checking this complaint cannot be otherwise than a commercial gain to the community; the remaining third, which are classed under "Other Tubercular," include almost entirely deaths under 5 years of age and for which Tubercular milk is generally held responsible.

The inspection of Cow-sheds, Milk Shops and Dairies, is now pretty general throughout England and Wales, but as yet nothing of the sort has been attempted here.

Mr. Collenette drew your attention to the above fact a short while ago, and you instructed me to communicate with Mr. G. W. Foote, who in his reply stated that he had not observed Tuberculosis in Guernsey cattle for many years. This appeared to me to be so remarkable that later I wrote again and this letter together with the further correspondence on this important subject will be found below.

Health Office, Hougue-à-la-Perre,
Guernsey, 31st May, 1902.

SIR,

Some while back in answer to a letter I wrote you at the request of the Board of Health, with reference to Bovine Tuberculosis in Guernsey,

you informed me that there were as far as you knew no tuberculous cattle in the Island. I should be obliged if you would let me know, by return, if the same still holds good, as I am just completing my report for 1901 and do not wish to state anything that is incorrect.

I should also be glad to know if there is any systematic inspection of the cattle, cow-sheds, milk shops, or dairies on the Island.

Apologising for troubling you,

I remain,

Yours faithfully,

E. STANLEY HOARE,

Medical Officer of Health.

G. W. Foote, Esq.,

States Veterinary Surgeon.

Meadow Grove,

Guernsey, June 2nd, 1902.

SIR,

In reply to yours received to-day, I have not seen a case of Bovine Tuberculosis since I last wrote you. Knowing that two American Veterinary Experts have recently tested a number of cattle (at Mr. A. Le Patourel's, La Ramée), I at once wrote him. I enclose his reply.

So far as I know, I do not think there is any systematic inspection of cow-sheds or dairies, but all cattle imported are inspected by the States Veterinary Inspector.

Yours faithfully,

GEO. W. FOOTE.

Dr. E. Stanley Hoare,

Medical Officer of Health.

[ENCLOSURE TO ABOVE].

La Ramée, Guernsey,

June 2nd, 1902.

DEAR SIR,

In reply to your letter relating to the Tuberculin Test conducted (by both the United States and Canadian Government Veterinary Inspectors) on cattle previous to shipment to those countries, I beg to state that 86 head have been

inoculated at my place attended with most satisfactory results, not one single animal showing the slightest reaction. I may add that Dr. Geddes, U.S. Vety. Inspector, who has inoculated 68 head, was surprised to find no traces of Tuberculosis amongst such a number.

I may state Mr. H. M. Ozanne, of Lilyvale, has also exported several to the United States which were likewise inoculated with satisfactory results.

Yours sincerely,

ALFRED LE PATOUREL.

G. W. Foote, Esq.

3rd June, 1902.

SIR,

I have to thank you for your prompt reply to my letter *re* Bovine Tuberculosis in Guernsey.

The results of the Tuberculin Tests are so satisfactory that I should like to publish your letter and the enclosure from Mr. Alfred Le Patourel *in extenso*.

Kindly reply at your earliest convenience as my report is now well in hand.

Congratulating you on the excellent results obtained by the careful supervision of imported cattle to avoid mixing the breed,

I am, Sir,

Yours faithfully,

E. STANLEY HOARE,
Medical Officer of Health.

G. W. Foote, Esq.,
States Veterinary Surgeon,
Guernsey.

Meadow Grove,
Guernsey, June 5th, 1902.

TUBERCULOSIS AND GUERNSEY CATTLE.

DEAR SIR,

Yours dated June 3rd *re* above to hand.

You have my full permission to publish my letter, also Mr. Alfred Le Patourel's enclosure, *in extenso*.

I may also add that I am expecting a letter on the subject from Mr. H. M. Ozanne, and should he wish it published, I will forward it to you.

Yours truly,

GEO. W. FOOTE.

Dr. E. Stanley Hoare,
Medical Officer of Health.

The following letter from Mr. H. M. Ozanne was received just in time for publication :—

Lilyvale, Castel, Guernsey.

DEAR SIR,

In reply to your enquiry respecting Tuberculosis in Guernsey Cattle, I am happy to say that although I have had many animals tested at various times during the last fifteen years by several gentlemen, in addition to yourself, viz. :— Drs. George and Samuel Burton, also Dr. Geddes, an American expert employed by the United States Government for this special purpose, I have never known a single case in which the animals were found affected.

Yours faithfully,

H. M. OZANNE.

To G. W. Foote, Esq.

It would seem, therefore, that there is little or no bovine tuberculosis in Guernsey.

Nevertheless, tubercular enteritis and phthisis are by no means unknown here.

Professor Koch in his well-known paper read before the British Congress on Tuberculosis in July, 1901, says: "My investigations have led me to form an opinion deviating from that which is generally accepted, *i.e.*, that bovine tuberculosis is different from human tuberculosis and that they are not intercommunicable."

The above facts certainly tend to corroborate Professor Koch's statement.

Phthisis appears to have assumed a different clinical aspect in Guernsey o recent years, and for the following I am indebted to a leading local practitioner of many years' standing.

acknowledged

phthisis
 "In what may be called the normal phthisis of Guernsey—the chronic phthisis of adult life, lasting over many years, and kept at bay by active or even inflammatory congestion—the only change is the appearance of indolent enlargement of the glands in the axillæ or neck, seldom proceeding to suppuration, but attended by loss of weight and general enfeeblement.

"The new feature is the incidence of lymphatic gland affection and chronic enlargement of the tonsils and the undue prevalence of cases of obvious infection.

"The history of the infected cases is that of fever simulating Enteric, localized Pneumonia (not lobular) subsiding after some weeks, leaving a patch of induration, which becomes quiescent, but does not clear up. Then glandular swelling appears above the clavicles or in the neck, followed by rapid excavation of the consolidated portion of the lung. This form of disease is rapid, but is to be distinguished from ordinary acute phthisis."

THE NEW SANATORIUM.

On the 20th of March, 1901, the States voted the sum of £6,500 for the erection of the above, shortly after which tenders for the carrying out of the work were invited by the Board, and after due consideration of those received, that of Messrs. T. J. Hawkins & Co., of Ashford (Middlesex), for £5,893 17s. 5d. was accepted. The necessity for a suitable and properly equipped Isolation Hospital was fully appreciated by the Board of Health at its inception in 1899, but much valuable time was lost in the selection of a site owing to the contrary opinion which prevailed in the States.

The fact that the States will in a short time have at their disposal a proper Isolation Hospital in the place of the make-shifts which have had to do duty in the past is a matter for congratulation.

SCHOOL INFECTIONS.

124 "cases" were reported from 24 out of the 27 schools in the Island. St. Stephen's was closed in October for Scarlet Fever. An outbreak of this complaint made it necessary to close "St. John's." The "Central" would have been dealt with in the same way had it not fortunately happened that the disease only broke out just before the commencement of the midsummer holidays.

Diphtheria caused some anxiety at St. Peter's-in-the-Wood, but the measures taken, viz.: prompt and strict isolation, combined with a free use of anti-toxin for immunizing purposes, were effectual in limiting the spread.

The subjoined table shows the number of cases notified from the schools above-mentioned. In none of the remaining twenty schools did either of the diseases assume an epidemic form.

Table D.

Name of School.	Scarlet Fever.	Diphtheria.
St. Stephen's	25	1
St. John's	18	2
Central	15	2
St. Peter's-in-the-Wood ...	1	5

WATER SUPPLY.

In my report for 1900 I referred to the unsatisfactory manner in which the Island was supplied with fresh water, since when, however, a States Committee has been formed to inquire and report as to what measures should be taken to improve the same; under these circumstances therefore it is inadvisable that I should make any further comment.

SCAVENGING AND CLEANSING.

On the 5th March, 1901, I presented the following memorandum for the consideration of the Board of Health, and it gives me much satisfaction to learn that a destructor is likely to be erected.

“There is at present much difficulty in disposing of the house refuse in the more crowded parts of St. Sampson's and the Vale Parishes, owing to the very limited spaces at the backs of the dwellings. To meet this difficulty I am of opinion that a house-to-house collection of dry refuse should be instituted as soon as possible, as is done in the town of St. Peter-Port.

“Owing to the increase of population, St. Peter-Port and St. Sampson's have now become practically continuous, and for purposes of sanitary administration it would seem desirable that arrangements should be made for mutual co-operation in the collection and disposal of household refuse.

“This will naturally raise the question if it is not now desirable to erect a destructor to cremate such refuse, as has been done in very many towns in England. I might point out in this connection that the heat generated has, in many cases, been transformed into electrical energy, thereby returning some interest on the capital sunk. My recent experiences in the Midlands have shown me that much depends on the nature of the matter to be disposed of, but I would point out that the most suitable refuse for burning will not make the undertaking self-supporting.

DISINFECTION.

The Disinfector has again done good service, as evidenced by the following list :—

ARTICLES DISINFECTED.

Blankets, sheets and counterpanes	1,147
Bolsters and pillows	513
Feather and flock beds	165
Mattresses (including renewal of leather buttons).....	389
Sundry articles	4,164

Two hundred and twenty-seven rooms were thoroughly disinfected by means of the "Formalin Spray."

Other disinfectants, such as perchloride of mercury and "chinosol," have been tried for the purpose of aërial and surface disinfection, but I am of opinion that formalin is the best of the disinfectants at present used for the purpose.

INSPECTIONS, &c.

Houses visited and re-visited to insure proper home isolation and the carrying out of sanitary improvements recommended by the M.O.H. numbered	284
Cases removed to the Isolation Hospitals	127
Cases removed to a suitable place other than the Hospital	6
Cases removed from Town Isolation Hospital to Castel Isolation Hospital.....	4

The above was done by the Sanitary Staff and the following caused to be carried out by the proprietors :—

Rooms cleansed and lime-washed.....	54
Soil Pipes and Drains reconstructed	6
Back yards cleansed	5
New W.C. basins fitted	16
Privies converted into pail closets	8
Yard gullies re-constructed	10
New cesspools made.....	6

The whole of the above was executed by the proprietors of the houses without any pressure from the Constables, but in addition 11 recalcitrant landlords required written notices from the Constables of their parishes before they would make the necessary sanitary improvements.

THE WEATHER OF 1901

WITH REFERENCE TO THE INFLUENCE IT HAS EXERTED ON THE
PUBLIC HEALTH.

As stated in my report on the weather of 1900, published in the *Billet d'État* for the 21st August, 1901, it is not possible, owing to the absence of data, to study the averages of diseases and the influence those elements of weather, which I discuss, has had upon them, because the figures obtainable previous to the appointment of a Medical Officer of Health for Guernsey are absolutely unreliable. X

In the report above alluded to, the study was practically initiated and, should the States continue the publication of these reports, it will be found that not only will the direct influence of weather factors be traced in the development of disease, but that the modifications peculiar to the climate of the Island will be discovered.

Just as different years give different weather, so also it is found that the details of the occurrence and distribution of epidemics in each year will vary. All other factors eliminated, it will be found that a decided link exists between the weather factors and the occurrence of disease, and above all, this applies to notifiable diseases.

Scarlet Fever in 1900 had its maximum development in the first four months of the year, but in 1902 the greatest development took place in the last four months. The chief weather factor for Scarlet Fever is Sunshine. 1900 and 1901 differed as regards Sunshine in that the sunniest month of 1900 was July and in 1901 May. In May, 1901, we have the fewest number of cases notified. This year Sunshine remained stationary in the months of June, July and August, but Scarlet Fever, influenced by some other factor, rose in July, possibly due to the rise of temperature natural to this part of the year. From August to the end of the year, Sunshine offered no bar to the increase of the Fever which reached its highest in October. The effect of this factor in both years is to be found in the fact that the epidemic does not occur in the sunniest month, although the rise of temperature in the summer is favourable to such an occurrence.

The same effects of temperature and sunshine are found in the case of Diphtheria in both 1900 and 1901, the highest monthly total being reached in the first and last quarters of the year.

The effect of Rainfall as a factor in the development of disease is in 1902 fairly well marked. Both Scarlet Fever and Diphtheria increase with diminished rainfall and decrease with increased rainfall, but the effect follows the cause by an interval, which is, of course, to be expected.

The temperature curve is given in the mean of 10-day periods which bring out fairly well the warm and cold "snaps" of the year. Diphtheria responds to these sufficiently to show that temperature changes are factors in its causation. Thus January was much warmer than February, and Diphtheria is reduced very considerably by the check it receives by the fall of temperature in the latter month. In March the temperature rose, but not to the same level as in January; again Diphtheria responds, its cases being more numerous than in February but less so than in January. Of course to be consistent the rise in temperature should be followed by an increase of Diphtheria until July is reached, and so, no doubt, it would be but for the Sunshine which is much more powerful as a factor in the opposite direction.

So far I have been dealing with the numbers of cases notified (see the Report of the M.O.H.); but it must not be forgotten that isolation must have enormously altered these figures from what they would have been without it, so that while recognising the influence of weather, I am not able to show such influence in so decided a manner as would be possible if the diseases we are dealing with were unchecked.

The great rise in Diarrhœa in August was largely influenced by the summer rise of temperature and the diminished rainfall of May, June, July and August, but the few cases occurring makes it difficult to shew the connection of these two factors with the disease.

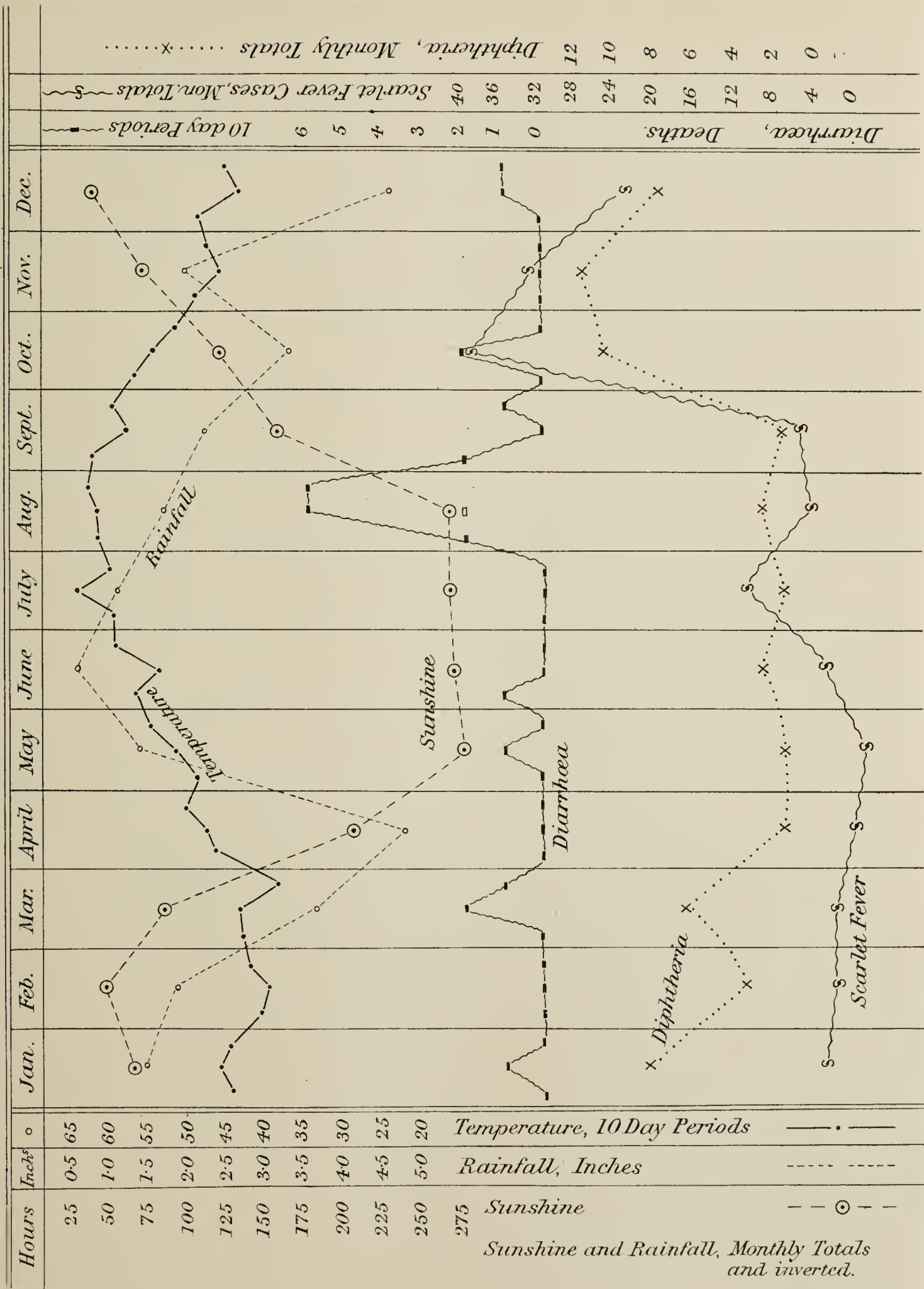
The year 1901 has not been an average year. There were no great extremes of heat. Sunshine and Rainfall were deficient in amount, especially in those months which usually give the highest totals.

Looking at the curves as they are shown, it appears to me that the prevalence of Scarlet Fever should have been greater in April and May. I put down its diminished numbers to the isolation insisted on, and numerous as the cases were in October, I think that seeing that the weather was favourable to the disease, we are justified in crediting isolation with a large modifying effect.

ADOLPHUS COLLENETTE, F.C.S., F.R. MET. Soc.

GUERNSEY.

Curves of Temperature, Sunshine, Rainfall, Scarlet Fever, Diphtheria and Diarrhoea for 1901.





DRAINAGE.

(Extracts from Mr. T. J. Guilbert's Report to the Street Board
for the year 1901.)

States Surveyor's Office,

Guernsey, 26th July, 1902.

The progress of the drainage extension under my charge in St. Peter-Port as well as at St. Sampson's, since the date of my report of June 7th, 1901, extracts from which accompanied the M.O.H.'s Annual Report published in the Billet d'État of 21st August, 1901, page 21 of Appendix, is as follows, viz. :—

ST. PETER-PORT.		Sewer.		Houses.	Estimated Population.	W.C. Accommodation.		
		New. Feet.	Recon- struction. Feet.			Having Mechanical Flushing.	Without Mechanical Flushing.	Total.
a	Rosaire Avenue and Dalgairns Road ...	1,260	...	52	260	...	...	...
	Collings Road ...	2,903	...	50	250	...	...	...
	Rohais Road ...	1,961	...	77	385	...	...	...
	Foulon Road ...	1,150	...	24	120	...	...	...
	„ Connection to Rohais	838	...	...	...	...	...	...
	Elm Grove ...	452	...	25	125	...	...	...
	Mount Durand ...	...	1,503	259	1,295	...	...	...
1901.—Totals...		8,564	1,503	487	2,435			
		1.62	miles.	.28	mile.			
ST. SAMPSON'S.								
b	Fontaine Road ...	1,243	...	49	301	5	47	52
	St. Clair Road ...	427	...	9	64	...	9	9
	Delancey Lane ...	502	...	1	4	...	1	1
	Pieds des Monts ...	736	...	12	67	...	13	13
	Rue des Monts ...	2,114	...	28	177	4	26	30
Carried forward ...		5,022		99	613	9	96	105

ST. SAMPSON'S— <i>continued.</i>	Sewer.		Houses.	Estimated Population.	W.C. Accommodation.		
	New. Feet.	Recon- struction. Feet.			Having Mechanical Flushing.	Without Mechanical Flushing.	Total.
Brought forward... ..	5,022		99	613	9	96	105
<i>b</i> { Brock Road	1,525	...	37	183	2	35	37
Mont Morin Road... ..	616	...	22	114	...	22	22
Pointues Rocques	430	...	16	93	...	15	15
Church Road... ..	700	...	13	93	...	13	13
Church Lane... ..	590	...	8	59	...	8	8
Roland Road	250	...	17	79	...	17	17
Totals... ..	9,133	...	212	1,234	11	206	217
	1.73	miles.					
<i>c</i> { Work executed in 1900 and not reported upon in the aforesaid report.							
Banks, Red Lion to Pike's Corner	3,100	...	77	401	4	70	74
Grandes Maisons Road...	1,605	...	23	151	4	19	23
Totals... ..	4,705	...	100	552	8	89	97
	.89	mile.					
Summary.							
ST. PETER-PORT, 1901, as per Schedule <i>a</i> above	8,564	1,503	487	2,435	...	...	...
Previously reported upon	14,854	6,364	602	3,010	...	...	...
ST. SAMPSON'S, 1901, as per Schedule <i>b</i> above	9,133	...	212	1,234	9	216	225
1900, as per Schedule <i>c</i> above	4,705	...	100	552	8	89	105
Totals... ..	37,256	7,867	1,401	7,231			
Total length of Main Drains.—New Drains					7.05	miles.	
Drains reconstructed					1.49	„	
Total					8.54	„	
Sewer Outfall ... ..					.23	„	
					8.77	miles.	
Total Houses served by New Drains					1,401		
Total Population „ „					7,231		

1901

The sewer outfall at Hougue-à-la-Perre serving both Districts above mentioned, has been extended as far down as the tides have permitted, the extremity, at present being close to low water mark of a 32 foot range or equinoctial springs, the length required to complete the total length of 1,300 feet being 72 feet. I hope the autumn equinoctial springs will recede sufficiently to allow the completion of this work.

With the exception of Stanley Road and York Avenue, for which the necessary sanction required by Law is to be asked from the Royal Court next Saturday, besides a few other small extensions still under consideration, there are, as far as I know at present, no heavy works of extension demanding immediate attention in S. Peter-Port, but there are several old brick and stone drains which are known to be defective and requiring renewal.

As to St. Sampson's Parish, several extensions are urgently needed, such as for instance, the thickly populated neighbourhood of Nocq Road, for which I have a scheme in course of preparation. This low-lying neighbourhood, however, presents serious difficulties, being considerably below high water-mark.

There are also certain thickly populated districts at St. Martin's, which should not be lost sight of, especially as these could easily drain into the existing sewers of St. Peter-Port.

With reference to the private connections with the new mains, I may say that the owners of the houses bordering have readily connected as the work progressed. There is, however, one exception, at Victoria Avenue—a private thoroughfare at S. Sampson's—where the owners failing to comply with the Law were recently actioned before the Royal Court, their refusal being based upon certain difficulties created by the ownership of the roadway. This case illustrates the urgent need of legislation to control, until the method of drainage suggested and the provision of an efficient water supply have satisfied the sanitary authority, the laying out and selling of estates in building plots.

I must again point out the very urgent need of legislative measures to enforce a compulsory efficient water service of some description for each house. The quantity of water obtainable from the water company is insufficient, the springs in private wells are low, and, in fact, as is well known, are in many cases several feet below the average level throughout the island, and consequently the quantity of water used by householders, especially on small properties, is insufficient for household washing and sewer flushing alike. The percentage of closets serving the population of the district draining into the sewers above mentioned and having mechanical means of flushing and cleansing after use in the St. Sampson's district, is as low as 5·07 per cent.

Read
Drainage

omitted

The branches and mains cannot therefore be kept as clean and free from sewer gas as they should.

The want of water is also seriously felt in connection with street watering and gully flushing, which cannot be done as it should be.

T. J. GUILBERT,

Mem. San. Inst., Mem. R.I.P.H., Mem. Soc. Med. Pub., France,
States Surveyor.